

# **The Relationship Between State Tax Incentives and the Federal Production Tax Credit for Wind Power**

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## **1.0 INTRODUCTION**

Tax incentives to support wind power can and have been enacted at both the state and federal levels. Several states have very recently established state tax incentives for wind power projects. In ascertaining the effectiveness of different state tax incentive policies, possible interactions between these policies and the federal production tax credit (PTC) for wind power must be considered. In particular, federal tax credits are reduced for certain types of state policies. It is therefore critical to determine which state tax incentives offset federal tax credits and the magnitude of this offset. Clearly, state policymakers may want to avoid enacting wind power policies that simply displace federal subsidies.

This brief paper provides a partial analysis of the potential impact of state tax incentives on the federal PTC. Section 2.0 provides a brief background to the federal PTC and introduces the offset issue generally and with respect to state tax incentives. Section 3.0 quantitatively evaluates the possible impact of the tax credit offset on some of the state tax incentive policies being considered and implemented in the U.S. Specifically, the fraction of state tax incentives that might be “wasted” by displacing federal tax incentives is estimated.

## **2.0 THE PTC AND ITS DOUBLE DIPPING PROVISIONS**

### ***2.1 The Federal Production Tax Credit***

Tax incentives have played a prominent role in both state and federal energy policy and in the commercialization of renewable energy technologies. In 1992, the Energy Policy Act established a 10-year, 1.54/kWh production tax credit for wind and closed-loop biomass (adjusted for inflation). The PTC has recently been extended through 2003.

## 2.2 “Double-Dipping” Provisions

To eliminate “double dipping,” the federal PTC is reduced for any local, state, or federal grants, local, state, or federal subsidized energy financing, and any other credits. The specific language is as follows:

*Credit Reduced for Grants, Tax-exempt Bonds, Subsidized Energy Financing, and Other Credits.-- The amount of the credit... with respect to any project for any taxable year... shall be reduced by the amount which is the product of the amount so determined for such year and a fraction:*

- (A) the numerator of which is the sum, for the taxable year and all prior taxable years, of*
  - a. grants provided by the United States, a State, or a political subdivision of the State for use in connection with the project,*
  - b. proceeds of an issue of State or local government obligations used to provide financing for the project the interest on which is exempt from tax under section 103,*
  - c. the aggregate amount of subsidized energy financing provided (directly or indirectly) under a Federal, State, or local program provided in connection with the project, and*
  - d. the amount of any other credit allowable with respect to any property which is part of the project, and*
- (B) the denominator of which is the aggregate amount of additions to the capital account for the project for the taxable year and all prior taxable years.*

Two general aspects of the double dipping provision deserve mention. First, despite a number of private letter rulings and other Congressional history, there remains a lack of clarity on exactly what kinds of state incentives would trigger the offset. For an excellent and authoritative review of these issues, see Ing. (2002), “The Effect of NYSERDA’s Wind Project Assistance on the Federal Production Tax Credit,” prepared for NYSERDA.

Second, the federal PTC offset is not one-for-one, but rather is proportional to the ratio of the state policy funding level to the capital cost of the project. The magnitude of the federal PTC offset will therefore depend on the capital cost of the project and on the size and payment schedule of the state incentive policy. So, even if the double dipping provision is triggered, a state policy may nonetheless provide incremental value to a wind power project.

## 2.3 State Tax Incentives

The intent of this paper is not to provide a comprehensive summary of the double dipping provisions, but to instead specifically discuss the potential implications of state tax incentives, and specifically state production tax incentives.

From the statutory language on the federal PTC, it is clear that at least one form of state tax

incentive will almost assuredly offset, at least partially, the benefits associated with the federal production tax credit – a state investment tax credit.

It is also reasonably clear that state sales and use taxes would not offset the PTC. This finding was confirmed in a recent private letter ruling by the IRS, summarized in the Ed Ing paper noted earlier. It may also be inferred that other forms of state property, use, sales, excise, or contractors tax incentives are unlikely reduce the federal PTC. **[NEED TO CONFIRM THIS LATTER STATEMENT WITH ED ING]** These forms of incentives are common at the state level.

What is not entirely clear is whether a state PTC would reduce the federal PTC. I am aware of no IRS ruling on this matter. **[CONFIRM WITH ED ING]** The federal PTC is to be reduced for other “credits,” implying a reduction for a state PTC. However, the IRS on several occasions has focused its offset rules on financial (capital) support, rather than operational (production) support. This also is discussed in the Ed Ing paper. Therefore, while a state investment tax credit would appear to reduce the federal PTC, the impact of a state PTC is less clear. This issue would appear ripe for an IRS ruling.

### **3.0 IMPACT OF THE OFFSET: ESTIMATING THE EFFECTIVE TAX ON STATE PRODUCTION AND INVESTMENT TAX INCENTIVES**

The impact of state tax incentives on the federal PTC should influence the types of policies enacted by states to support wind power, especially if one assumes that the federal PTC will continue to be extended. This section considers the possible impacts of state investment and production tax credits. The value of these programs given the potential federal tax credit offset is estimated. The federal “takeback” of state tax incentives is also calculated. This “takeback” represents the value of a state tax incentive that would effectively be lost through a reduction in the value of the federal PTC.

#### **3.1 *State Production Tax Credits***

Several states have recently established or have considered production tax credits for wind power and/or other renewable energy sources. These states include: Maryland, Oklahoma, New Mexico, and Nebraska. As noted earlier, it remains somewhat unclear whether these policies would trigger the federal PTC’s double dipping provisions. Assuming that the double dipping provisions would be triggered, in this section we evaluate the magnitude of the offset in Oklahoma and New Mexico.<sup>1</sup> Our analysis uses a standard 20-year cash-flow model for a wind power project that begins commercial operations in 2003 and has a nominal levelized price of 4.37¢/kWh, including the federal PTC.

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<sup>1</sup> We do not evaluate Maryland’s 10-year PTC of \$0.0085/kWh because it is only available to projects that do not claim the federal PTC, thereby rendering the issue of credit offsets moot. Also, we were unable to easily locate the text of Nebraska’s proposed legislation, and so have not included Nebraska in our analysis.

### *Oklahoma*

Starting in January 2002, Oklahoma offers renewable facilities of 50 MW or greater a production tax credit of \$0.0075/kWh for electricity generated prior to 2004, \$0.0050/kWh for electricity generated from 2004 through 2006, and \$0.0025/kWh for electricity generated from 2007 through 2011. Given our assumption that a 50 MW wind project would not come on line prior to January 2003, only 9 years of state tax incentives are available to the project.

Assuming no offset of the federal PTC, the Oklahoma PTC is worth \$0.0022/kWh over 20 years (nominal levelized). With an offset of the federal PTC, the value of the Oklahoma PTC declines to \$0.0013/kWh. In other words, 41% of the value of the Oklahoma PTC is “taken back” by the federal PTC offsets.

### *New Mexico*

New Mexico offers renewable facilities of 20 MW or greater a 10-year production tax credit of \$0.01/kWh for the first 400,000 MWh (at a 30% capacity factor, this limit roughly equates to a 150 MW facility) of electricity produced each year. Participation is limited to 800,000 annual MWh in aggregate, which equates to roughly 300 MW of total capacity (at a 30% capacity factor). If the amount of the tax credit exceeds the taxpayer’s corporate tax liability, the excess may be carried forward for 5 years.

Assuming no offset of the federal PTC, New Mexico’s PTC is worth \$0.0053/kWh over 20 years (nominal levelized). With an offset, the value of the New Mexico PTC declines to \$0.0033/kWh. In other words, 37% of the value of the New Mexico PTC is “taken back” by the federal PTC offsets.

### *Summary*

This analysis suggests that a state PTC can still have significant value even if it does cause an offset in the federal PTC payments. However, approximately 40% of the state PTC would be “wasted” as a federal PTC offset if these incentives were deemed by the IRS to reduce the federal PTC.

## **3.2 Investment Tax Credits**

Other states have established investment tax credits (ITC), which as noted earlier almost assuredly will reduce the value of the federal PTC. Using the same cash flow model as above, we estimate the “takeback” fraction assuming a 10% and 20% state ITC. Without any offset of the federal PTC, these ITCs are worth \$0.0040/kWh and \$0.0080/kWh respectively over 20 years (nominal levelized). With an offset, their value drops to \$0.0024/kWh and \$0.0048/kWh respectively, a “takeback” of 40%, which is essentially the same as that experienced by state PTCs.

## **4.0 CONCLUSION**

The impact of state tax incentives on the federal PTC for wind power is an important issue that must be considered in the selection and design of state renewable energy policies. This paper has provided a brief overview and analysis of the issues involved with the offset. State investment tax credits will almost assuredly reduce federal PTC payments, while state property, sales, use, and excise incentives will most likely not trigger the double dipping provisions. Clarification from the IRS is essential especially for state PTCs, which have an unclear effect on the federal PTC.

The analysis provided in this paper also suggests that state PTCs and investment tax credits should not be excluded from consideration even if they are subject to federal PTC offsets. The value of these programs (in terms of reduced wind power costs) exceeds the cost of a reduced federal PTC. In the case of state PTCs and ITCs, for example, the “takeback” fraction is estimated to be approximately 40%. This “takeback” fraction is not insignificant, however, and some fraction of state tax incentives will be “wasted” if these programs offset the PTC.